

Notice of Allowability

Application No.

10/666,811

Examiner

Anthony J. Paviglianiti

Applicant(s)

CAMERON ET AL.

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendments to Claims June 6, 2005.
2. ☒ The allowed claim(s) is/are 1 - 5, 10, 11.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/21/03, 2/23/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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DETAILED ACTION

Applicant's "Amendments to the Claims," received June 6, 2005, is acknowledged. **Claims 1 – 5 and 10 – 11** have been amended in response to the first Office Action dated March 29, 2005. **Claims 6 – 9 and 12 – 15** were subsequently cancelled by Examiner's Amendment authorized by applicant (see below). **Claims 1 – 5 and 10 – 11**, as amended, are currently pending in the application.

Priority

This application claims benefit of U.S. Provisional Application No. 60/412,338, filed September 20, 2002.

Information Disclosure Statement

The Information Disclosure Statements filed on November 21, 2003, and February 23, 2004, are in compliance with 37 C.F.R. §1.97, and were considered by the examiner.

Examiner's Response to Amendment to Claims

Applicant's "Amendments to the Claims" and "Remarks," received June 6, 2005, are acknowledged.

In the first Office Action, **Claims 1 – 4, 10 and 11** were rejected pursuant to 35 U.S.C. §102(b), and **Claims 2, 3, 4 and 5** were rejected pursuant to 35 U.S.C. §112, 2nd paragraph. The following sections address the rejections made in the Office Action dated March 29, 2005.

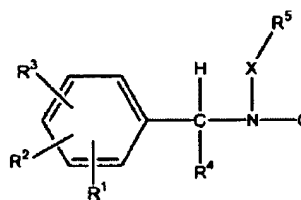
1) Rejections brought under 35 U.S.C. §102(b)(Claims 1 – 4, 10 and 11):

In the first Office Action, the following claims of the present invention were rejected under 35 U.S.C. §102(b): (1) **Claims 1, 2, 3 and 4** as anticipated by **Bowman, W.R., et al.**, "Synthesis of Oxindoles by Radical Cyclisation," Tetrahedron Letters, vol. 29(50), pages 6657 –

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6660 (1988) at page 6659, lines 1 – 3; **(2) Claims 1, 4, 10 and 11**, as anticipated by **WO 94/20467** (Von Der Saal, et al.), at p. 35, lines 9 – 18, “Example 88” (page 70 lines 1 - 17) and Example 91 (p. 72, lines 23 – 27), and in the Abstract, lines 15 – 16; **(3) Claims 1 and 10**, as anticipated by **EP 0 585 500 A1**, (van Hijfte, et al.), at “Example 53,” p. 43, lines 1 – 18 and page 54, lines 3 – 4; **(4) Claims 1 and 2** as anticipated by Japanese Patent **JP 04-145067 A2** (Ishikawa, et al.), at page 2, col. 2, line 21, “compound 8,” and page 2, col. 1 & 2, compounds 1 – 16; and **(5) Claim 1**, as anticipated by **Linfield, et al.**, “Antibacterially active Substituted Anilides of Carboxylic and Sulfonic Acids,” *J. Med. Chem.*, vol. 26(12), pages 1741-1746 (December 1983), at page 1743, Table IV, compound 105.

Applicant has overcome each of the rejections brought under 35 U.S.C. §102(b) to **Claims 1, 2, 3, 4, 10 and 11** by the amendments made in **Claims 1 – 4**, most particularly by the



amendments to **Q, Z, R⁵, R^a and R^b** in formula (I),

rejections to **Claims**

1, 2, 3, 4, 10 and 11. Consequently, the rejections to **Claims 1, 2, 3, 4, 10 and 11** brought in the first Office Action under 35 U.S.C. §102(b) are hereby expressly withdrawn.

2) Claims 2 – 5: Rejections brought under 35 U.S.C. §112, 2nd paragraph:

In the first Office Action, **Claims 2 – 5** were rejected pursuant to 35 U.S.C. §112, 2nd paragraph.

Specifically, **Claim 5** was rejected under 35 U.S.C. §112, 2nd paragraph, for lack of antecedent basis, as one of the chemical species recited in **Claim 5** was not within the limitations of formula (I) recited in **Claim 1** (upon which **Claim 5** depends). Applicant's amendment to

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Claim 5, deleting this particular species, has overcome the rejection. Consequently, the rejection to **Claim 5** brought under 35 U.S.C. §112, 2nd paragraph, is hereby expressly withdrawn.

Likewise, **Claims 2 – 4** were rejected under 35 U.S.C. §112, 2nd paragraph, for lack of antecedent basis, as the dependent claims recited a substituent at **R⁵** (i.e., a phenyl group) that was outside the scope of **R⁵** as recited in the independent claim, **Claim 1**. Applicant's amendment to **R⁵** in the independent claim has overcome the rejection. Therefore, the rejections to **Claims 2 – 4**, brought under 35 U.S.C. §112, 2nd paragraph, are hereby expressly withdrawn.

New Matter Analysis

No new matter was found in the amendments to the claims.

Withdrawal of Restriction Requirement

The examiner's restriction requirement, written in the first Office Action (dated March 29, 2005), is hereby expressly withdrawn.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the change be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. §1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

On September 7, 2005, the examiner and applicant, John Wichtowski, Esq., agreed to the following examiner's amendments to the claims, which were expressly authorized by applicant:

Delete **Claim 6**.

Delete **Claim 7**.

Delete **Claim 8**.

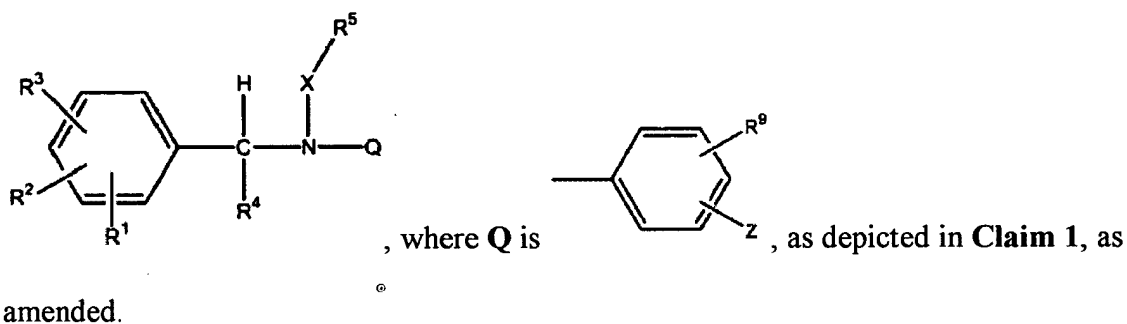
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Delete **Claim 9**.Delete **Claim 12**.Delete **Claim 13**.Delete **Claim 14**.Delete **Claim 15**.

The above-referenced claims were cancelled by applicant without prejudice to pursue in a future continuing or divisional application. A summary of this telephone interview may also be found on Form PTOL-413, dated September 7, 2005. It is not necessary for applicant to provide a separate record of the telephone interview.

Reasons for Allowance

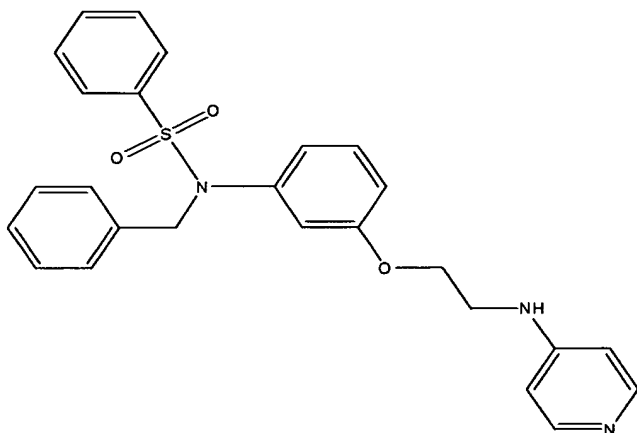
The following is an examiner's statement of reasons for allowance: The present invention is directed to compounds and compositions of formula (I),



As described above, the applicant's amendments to the claims were sufficient to overcome all of the rejections brought in the first Office Action.

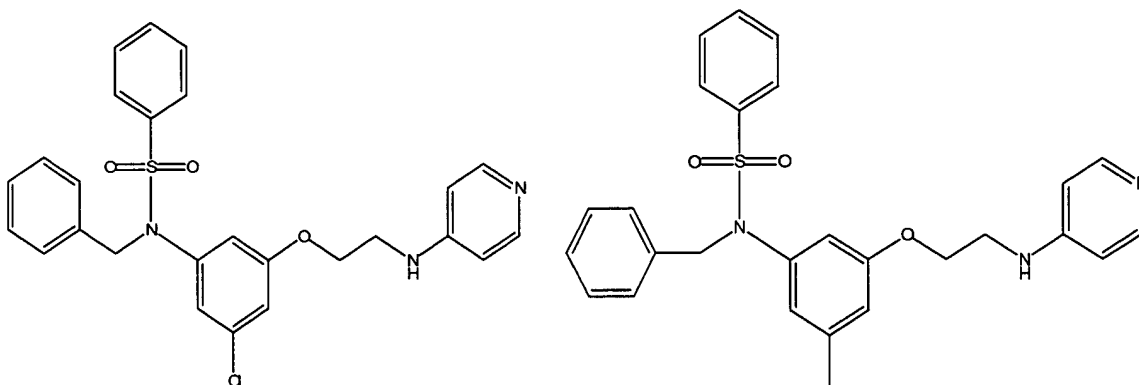
The closest prior art of record to **Claims 1 – 5** of the present invention are the following three compounds disclosed in **WO 94/20467** (Von Der Saal, et al.):

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N-benzyl-N-[3-[2-(pyridin-4-ylamino)-ethoxy]phenyl]-benzenesulfonamide (WO 94/20467, p. 35, lines 9 – 18,

“Example 15”), which corresponds to the present invention where R^1 , R^2 , R^3 and R^4 are each a hydrogen atom; X is SO_2 ; R^5 is a phenyl group; Q is a phenyl group; and Z is $-O(CH_2)_2NH$ -4-pyridine; as well as:



N-benzyl-N-[3-[2-(pyridin-4-ylamino)-ethoxy]5-chloro-phenyl]-benzenesulfonamide N-benzyl-N-[3-[2-(pyridin-4-ylamino)-ethoxy]5-methyl-phenyl]-benzenesulfonamide (WO 94/02467 at page 70, lines 1–17, “Example 88”, and at p. 72, lines 23–27, “Example 91”).

These compounds correspond to the present invention of formula (I) where Q is substituted by R^9 and/or Z (p. 128, lines 9 – 11), where R^1 , R^2 , R^3 and R^4 are Hydrogen atoms; X is SO_2 ; R^5 is phenyl; Q is phenyl; R^9 is chlorine (“Example 88”) or methyl (“Example 91”); and Z is $-O(CH_2)_2NH$ -4-pyridine (as shown). Although the disclosed compounds from the prior art are similar to the compounds claimed in amended **Claim 1** of the present invention (and to its dependent claims), the compounds are neither anticipated nor rendered obvious by the prior art

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because, *inter alia*, the heterocyclic ring at the end of substituent **Z** is a *pyridyl* group (in the prior art), rather than a *pyrrolidinyl* or *piperidinyl* group to which amended **Claim 1** is limited (see amended Claim 1 at page 3, line 18 and page 4, lines 4 – 6: "...**Z** is $-\text{O}(\text{CH}_2)_2\text{NR}^a\text{R}^b$... **R**^a and **R**^b, taken together...are a heteroalkyl group selected from pyrrolidinyl or piperidinyl..."). In addition, a review of related art by the examiner revealed no "blazemarks" in the prior art which would have provided a motivation for the person of skill in the art to make this particular substitution to substituent **Z** at the time of this application.

The closest prior art to **Claims 10 and 11** (pharmaceutical compositions) is also **WO 94/02467** (Van Der Saal), which disclosed "...the hydrates, solvates and physiologically acceptable salts of these compounds...medicaments containing said compounds and the use of said compounds for producing medicaments." (See **WO 94/02467** at Abstract, lines 15 – 16). As before, the amendments made to the compounds in independent **Claim 1** of the present invention were sufficient to distinguish the compounds of the present invention from those disclosed in the closest prior art, **WO 94/02467**, thus the "pharmaceutical compositions" comprised of these particular compounds were neither anticipated nor rendered obvious by the closest prior art.

For all of the reasons above, **Claims 1 – 5, 10 and 11** (as amended), are neither anticipated nor rendered obvious over the prior art of record, and are therefore allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should accompany the issue fee. Such submissions should be clearly labeled as "Comments on Statement of Reasons for Allowance."

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Conclusion

Claims 1 – 5, 10 and 11, as amended, are allowed.

Claims 6 – 9 and 12 – 15 were cancelled by examiner's amendment, authorized by applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Anthony J. Paviglianiti** whose telephone number is **(571) 272-3107**. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:30 p.m.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached at (571) 272-0699. **The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Please note that this is a new central FAX number for all official correspondence.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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